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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,706	08/20/2003	Andre Sirilutporn Chan	HSJ920030066US2	6696

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EXAMINER	
KLIMOWICZ, WILLIAM JOSEPH	

ART UNIT	PAPER NUMBER
2627	

DATE MAILED: 04/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/644,706	CHAN ET AL.	
	Examiner	Art Unit	
	William J. Klimowicz	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-16 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-16 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 20 August 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2 and 4-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Adams et al. (US 6,898,048) B2.

As per claim 1, Adams et al. (US 6,898,048) B2 discloses an apparatus, comprising: a diffuser (e.g., at least the chamber portion (142) since it is structured to provide a larger exterior opening, relative to a narrower internal and constricted portion - see FIG. 4, via the Venturi effect) adapted to reduce drag from a disk (108) due to disk wake in a bypass channel, the diffuser (including (142)) having a comb-like structure ((due to plate fins (178, 180) as seen in FIG. 4) having a pair of axially-oriented side walls (vertical sidewall (144) and the other side wall being the vertical side wall (124)) and at least one air foil (178, 180) extending between the side walls.

As per claim 2, wherein the diffuser further comprises an air filter (156) for filtering air flow.

As per claim 4, wherein the diffuser has an air foil (178, 180) having a generally planar orientation - e.g., see FIG. 4.

As per claim 5, wherein the air foil has a leading edge with a flat transverse surface (albeit, thin) axial direction. - e.g., see FIG. 4

As per claim 6, wherein the leading edge of the air foil (178, 180) has an arcuate contour - e.g., see FIG. 4 (edge that is commensurate with wall (144)).

Claims 1, 4 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Subramaniam et al. (US 6,788,493).

As per claim 1, Subramaniam et al. (US 6,788,493) discloses an apparatus, comprising: a diffuser (e.g., 418, 518) adapted to reduce drag from a disk (26) due to disk wake in a bypass channel, the diffuser (e.g., 418, 518) having a comb-like structure (due to fins) having a pair of axially-oriented side walls (e.g., the leftmost vertical thin side wall of member (556); the other side wall being the right-most vertical thin side wall of member (556) as seen in FIG. 5) and at least one air foil (558A, 558B, 558C) extending between the side walls.

As per claim 4, the diffuser has an air foil (558A, 558B, 558C) having a generally planar orientation - FIG. 5.

As per claim 5, wherein the air foil(558A, 558B, 558C) has a leading edge (e.g., thin side of an air foil) with a flat transverse surface extending in an axial direction.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al. (US 6,898,048) B2 in view of Haruyama (US 6,097,569).

See the discussion of Adams et al. (US 6,898,048) B2, *supra.*

As per claim 3, although Adams et al. (US 6,898,048) B2 remains silent with respect to the air filter (156) of the diffuser incorporating electrical charges to filter air flow, such types of filters are notoriously old and well known and ubiquitous in the art; such filters being capable of instant and unquestionable demonstration as being well-known.

As just an example, Haruyama (US 6,097,569) discloses an analogous disk drive in the same field of endeavor as Adams et al. (US 6,898,048) B2, wherein an analogous recirc filter includes an electrostatic filter for effectively removing dust within the disk drive.

Given the express teachings and motivations, as espoused by Haruyama (US 6,097,569), it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the filter (156) of Adams et al. (US 6,898,048) B2 with electrical charges to filter air flow, as is known in the art, and exemplified by Haruyama (US 6,097,569).

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the filter (156) of Adams et al. (US 6,898,048) B2 with electrical charges to filter air flow, as is known in the art, and exemplified by Haruyama (US 6,097,569) in order to effectively remove ionized dust via electrostatic attraction in the filter, as is known in the art, exemplified by Haruyama (US 6,097,569).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over *at least* claims 1-3, 6, 8, 9, 10, 11, 12, 14, 15, 16, 21 and 22 of copending Application No. 10/644,172. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims of application set forth the subcombination of a diffuser, contraction , air foil(s), filter(s), etc. as set forth in pending claims 1-16 of SN 10/644,705, but does not explicitly/positively set forth its intended operating environment (i.e., a disk drive).

Application No. 10/644,172 by the same inventive entity, sets forth all of the claimed structure within the scope, but with the addition of positively set forth disk drive structure. Given the express claim language as provided for in the instant application (i.e., SN 10/644,705), it would have been obvious to one of ordinary skill in the art at the time the invention was made

to have claimed within the same application the intended, conventional and ubiquitous operating environment of the disk drive, as set forth in the claims of Application No. 10/644,172 in order to provide a scope of coverage that include the intended operating environment of the claims of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

William J. Klimowicz
Primary Examiner
Art Unit 2627

WJK